Debra L. Jones

Port Tobacco, MD 20677

January 17, 2022

Commissioners of Charles County, Maryland
200 Baltimore Street
La Plata, MD 20646

RE: Ordinance requiring face coverings to reduce the spread of COVID-19

Commissioners Bowling, Coates, Collins, Rucci, and Stewart:

As a resident of Charles County, I request that you:

1. Abandon the idea of a mask mandate altogether;
2. Consider whether widespread mask ***policy*** may actually be contributing to COVID-19 transmission in this community; and
3. Consider some alternative measures (below).

It is well-known - although not currently widely acknowledged - that masks are not effective in stopping respiratory virus:

1. Before 2020, CDC guidelines never recommended widespread masking to reduce the transmission of respiratory illness. Masking was added to the guidelines not because of new revelations about mask effectiveness, but rather, the desperate situation COVID-19 created.

2. Dr. Anthony Fauci himself stated in a 2/5/20 e-mail to former HHS Secretary Sylvia Burwell, "They typical mask you find in a drug store is not really effective in keeping out virus, which is small enough to pass through the material." (Copy *attached*)

3. The FDA – ***as of today*** – clarifies that, "While a surgical mask may be effective in blocking splashes and large-particle droplets, a face mask, by design…does not filter or block very small particles in the air that may be transmitted by coughs, sneezes…Surgical masks also do not provide complete protection from germs and other contaminants…" See this page: https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/n95-respirators-surgical-masks-face-masks-and-barrier-face-coverings or (Copy *attached*)

<u>Study takes into account mask fit:</u>

In July 2021, the American Institute of Physics published a mask study conducted at the Fluid Mechanics Research Laboratory at the University of Waterloo in Ontario, Canada. One unique approach of this study is that testing was performed using manikins and took into account mask fit, not simply the filtration material. The effective efficiencies may surprise you:

MASK TYPE	EFFICIENCY
Cloth	9.8 %
Surgical	12.4 %
KN95	46.3 %
Loose-fitting KN95	3.4 %

The fact that this study found that even KN95 masks had such a low efficiency when worn improperly should be a huge red flag for health officials.

These efficiencies were realized in a stationary, laboratory setting on a manikin. Accordingly, real life conditions such as movement and facial hair will all but eliminate any protective value, which makes pre-COVID non-usage of masks very logical. (Copy of title page and key findings *attached*.)

Link to the full study: https://aip.scitation.org/doi/full/10.1063/5.0057100

How widespread mask policy may contribute to transmission:

Your general messaging tells people that they are "safe" in masks and that everyone should wear them. This messaging is perpetuated at a higher level by the federal government. However, I suggest to you this message and ***mask mandates may actually contribute to Covid spread***.

How? Look at the mask efficiency data from the study above. When ***people believe masks protect them more than masks actually do*** in real-life settings, they will inadvertently expose themselves to greater risk than they would mask-less. This is particularly unfortunate for people vulnerable to severe illness; these people need to know the truth quantitatively about what masks can - and can not do - for them.

The case data from Maryland Department of Health also demonstrates that there is no measurable benefit to masking policy; in fact, we should question whether the mask policies are actually making things worse:

1. During the Delta wave a few months ago, Charles and Prince George's Counties – which had mask mandates – had rates similar to or higher than Calvert and Anne Arundel Counties (no mandates).

2. During this Omicron wave, both Charles and Prince George's Counties have had consistently higher COVID-19 rates than Calvert, Anne Arundel, and St. Mary's Counties. Although Charles County has not had a mask mandate since November 30, there is no doubt that voluntary public masking is higher here than it is in the three counties without mask mandates; the difference is obvious when you travel throughout Southern Maryland. (see *attached* chart)

You should really be looking at the data and considering whether the perception that masks "make you safe" has the unintended consequence that people take more risk in masks because they feel "safe." It would be better that we know the relative effectiveness of masks so we can make the best individual decisions, according to the situation.

More effective alternatives:

1. Disregard the widespread mask policy. Use the time and energy on something more productive.

2. Publish the best information available about the efficiencies of each type of mask. Give the actual numbers, not just generalizations like "they're safe" or "these are better." The study I

noted is convenient because it tested the three major categories and took into effect the consequence of fit.

3. You could go as far as facilitating instruction and education regarding KN95 masks for people who are truly at risk, prioritized perhaps for those who are immune compromised, elderly, or their caretakers.

4. Advocate for more widespread study, utilization, and availability of therapeutics to treat people infected with COVID-19.

More experts are coming out in the media now and clarifying how cloth and improperly fitted masks don't work. There are even recent reports that some KN95 masks are counterfeit. It will eventually come to light that these masking efforts over the past couple of years have not helped, and in many cases have likely done more harm than good. Now is a good time, Commissioners, to take this in a different direction that will be more helpful to the community.

It is time to end this mask-charade.

Thanks for your consideration,

Debra Jones
Port Tobacco, MD

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Wed, 5 Feb 2020 03:48:11 +0000
To: Sylvia Burwell
Subject: RE: A couple of quick questions.

Sylvia:

Masks are really for infected people to prevent them from spreading infection to people who are not infected rather than protecting uninfected people from acquiring infection. The typical mask you buy in the drug store is not really effective in keeping out virus, which is small enough to pass through the material. It might, however, provide some slight benefit in keep out gross droplets if someone coughs or sneezes on you. I do not recommend that you wear a mask, particularly since you are going to a vey low risk location. Your instincts are correct, money is best spent on medical countermeasures such as diagnostics and vaccines.

Safe travels.

Best regards,

Tony

From: Sylvia Burwell [redacted (b) (6)]>
Sent: Tuesday, February 4, 2020 10:24 PM
To: Fauci, Anthony (NIH/NIAID) [E] [redacted (b) (6)]
Subject: A couple of quick questions.

Begin forwarded message:

> **From:** Sylvia Burwell [redacted (b) (6)]
> **Date:** February 4, 2020 at 9:35:03 PM EST
> **To:** Sylvia Burwell [redacted (b) (6)]
> **Subject: Fwd: Advice re a donation**

> **EXTERNAL EMAIL:** Use caution with links and attachments.

Begin forwarded message:

> **From:** Sylvia Burwell [redacted (b) (6)]
> **Date:** February 4, 2020 at 9:33:47 PM EST
> **To:** Tony Fauci [redacted (b) (6)]>
> **Subject: Fwd: Advice re a donation**

N95 Respirators, Surgical Masks, Face Masks, and Barrier Face Coverings

N95 respirators and surgical masks are examples of personal protective equipment that are used to protect the wearer from particles or from liquid contaminating the face. The Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH) also regulates N95 respirators. The Department of Labor's Occupational Safety and Health Administration (OSHA) regulates entities for compliance with worker safety rules and OSHA standards, including, for example, the proper use of respirators in different work environments.

It is important to recognize that the optimal way to prevent transmission of microorganisms, such as viruses, is to use a combination of interventions from across the hierarchy of controls, not just PPE alone.COVID-19 Resources on Respirators and Masks.

COVID-19 Resources on Respirators and Masks

Face Masks, Including Surgical Masks, and Respirators for COVID-19 (/medical-devices/coronavirus-covid-19-and-medical-devices/face-masks-barrier-face-coverings-surgical-masks-and-respirators-covid-19): Answers to frequently asked questions, with information on using masks and respirators, shortages, Emergency Use Authorizations (EUAs), manufacturing, and importing masks and respirators

For health care providers and facilities:

- Considerations for Selecting Respirators for Your Health Care Facility (/medical-devices/coronavirus-covid-19-and-medical-devices/considerations-selecting-respirators-your-health-care-facility)
- Surgical Mask and Gown Conservation Strategies - Letter to Health Care Providers (/medical-devices/letters-health-care-providers/surgical-mask-and-gown-conservation-strategies-letter-health-care-providers)
- Wear Face Masks with No Metal During MRI Exams: FDA Safety Communication (/medical-devices/safety-communications/wear-face-masks-no-metal-during-mri-exams-fda-safety-communication)

For industry:

- Manufacturing and Distributing Respirators for Health Care Use in the United States (/medical-devices/coronavirus-covid-19-and-medical-devices/manufacturing-and-distributing-respirators-health-care-personnel-use-united-states-under-existing)

On this page:

CDC Recommendations for the General Public

Please refer to CDC's webpage for recommendations regarding use of masks. Effective February 2, 2021, CDC issued an order (https://www.cdc.gov/quarantine/masks/mask-travel-guidance.html) requiring **masks** on planes, buses, trains, and other forms of public transportation traveling into, within, or out of the United States and in U.S. transportation hubs such as airports and stations.

Face Masks

A face mask is a product that covers the wearer's nose and mouth. Face masks are for use as source control (https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/face-masks-including-surgical-masks-and-respirators-covid-19#using) by the general public and health care personnel (HCP) in accordance with CDC recommendations (https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html), and are not personal protective equipment. Face masks may or may not meet any fluid barrier or filtration efficiency levels; therefore, they are not a substitute for N95 respirators or other Filtering Facepiece Respirators (FFRs), which provide respiratory protection to the wearer, or for surgical masks, which provide fluid barrier protection to the wearer.

Barrier Face Coverings

A barrier face covering, as described in ASTM F3502-21, is a product worn on the face specifically covering at least the wearer's nose and mouth, with the primary purpose of providing source control (https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/face-masks-including-surgical-masks-and-respirators-covid-19#using) and to provide a degree of particulate filtration to reduce the amount of inhaled particulate material. Barrier face coverings are not a substitute for N95 respirators and other Filtering Facepiece Respirators (FFRs), which provide respiratory protection to the wearer, or for surgical masks, which provide fluid barrier and particulate material protection to the wearer.

Barrier face coverings may be made from a variety of materials that are not flammable. By definition, a barrier face covering should meet the particulate filtration efficiency, airflow resistance, and leakage assessment recommendations as described in ASTM F3502-21.

Surgical Masks

A surgical mask is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Surgical masks are regulated under 21 CFR 878.4040. Surgical masks are not to be shared and may be labeled as surgical, isolation, dental, or medical procedure masks. They may come with or without a face shield. These are sometimes referred to as face masks, as described above, although not all face masks are regulated as surgical masks.

Surgical masks are made in different thicknesses and with different ability to protect you from contact with liquids. These properties may also affect how easily you can breathe through the face mask and how well the surgical mask protects you.

If worn properly, a surgical mask is meant to help block large-particle droplets, splashes, sprays, or splatter that may contain germs (viruses and bacteria), keeping it from reaching your mouth and nose. Surgical masks may also help reduce exposure of your saliva and respiratory secretions to others.

While a surgical mask may be effective in blocking splashes and large-particle droplets, a face mask, by design, it does not filter or block very small particles in the air that may be transmitted by coughs, sneezes, or certain medical procedures. Surgical masks also do not provide complete protection from germs and other contaminants because of the loose fit between the surface of the mask and your face.

Surgical masks are not intended to be used more than once. If your surgical mask is damaged or soiled, or if breathing through the mask becomes difficult, you should remove it, discard it safely, and replace it with a new one. To safely discard your surgical mask, place it in a plastic bag and put it in the trash. Wash your hands after handling the used mask.

N95 Respirators

An **N95 respirator** is a respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles. Note that the edges of the respirator are designed to form a seal around the nose and mouth. Surgical N95 Respirators are commonly used in healthcare settings and are a subset of N95 Filtering Facepiece Respirators (FFRs), often referred to as N95s.

Comparing Surgical Masks and Surgical N95 Respirators

The FDA regulates surgical masks and surgical N95 respirators differently based on their intended use.

A **surgical mask** is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. These are often referred to as face masks, although not all face masks are regulated as surgical masks. Note that the edges of the mask are not designed to form a seal around the nose and mouth.

An **N95 respirator** is a respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles. Note that the edges of the respirator are designed to form a seal around the nose and mouth. Surgical N95 Respirators are commonly used in healthcare settings and are a subset of N95 Filtering Facepiece Respirators (FFRs), often referred to as N95s.

General N95 Respirator Precautions

- People with chronic respiratory, cardiac, or other medical conditions that make breathing difficult should check with their health care provider before using an N95 respirator because the N95 respirator can make it more difficult for the wearer to breathe.
- Some models have exhalation valves that can make breathing out easier and help reduce heat build-up. Note that N95 respirators with exhalation valves should not be used when sterile conditions are needed.
- All FDA-cleared N95 respirators are labeled as "single-use," disposable devices. If your respirator is damaged or soiled, or if breathing becomes difficult, you should remove the respirator, discard it properly, and replace it with a new one. To safely discard your N95 respirator, place it in a plastic bag and put it in the trash. Wash your hands after handling the used respirator.
- N95 respirators are not designed for children or people with facial hair. Because a proper fit cannot be achieved on children and people with facial hair, the N95 respirator may not provide full protection.

N95 Respirators in Industrial and Health Care Settings

Most N95 respirators are manufactured for use in construction and other industrial type jobs that expose workers to dust and small particles. They are regulated by the National Personal Protective Technology Laboratory (NPPTL) in the National Institute for Occupational Safety and Health (NIOSH), which is part of the Centers for Disease Control and Prevention (CDC).

However, some N95 respirators are intended for use in a healthcare setting. Specifically, single-use, disposable respiratory protective devices used and worn by healthcare personnel during procedures to protect both the patient and healthcare personnel from the transfer of microorganisms, body fluids, and particulate material. These surgical N95 respirators are class II devices regulated by the FDA, under 21 CFR 878.4040, and CDC NIOSH under 42 CFR Part 84.

N95s respirators regulated under product code MSH are class II medical devices exempt from 510(k) premarket notification, unless:

- The respirator is intended to prevent specific diseases or infections, or
- The respirator is labeled or otherwise represented as filtering surgical smoke or plumes, filtering specific amounts of viruses or bacteria, reducing the amount of and/or killing viruses, bacteria, or fungi, or affecting allergenicity, or
- The respirator contains coating technologies unrelated to filtration (e.g., to reduce and or kill microorganisms).

The FDA has a Memorandum of Understanding (MOU) (/about-fda/domestic-mous/mou-225-18-006) with CDC NIOSH which outlines the framework for coordination and collaboration between the FDA and NIOSH for regulation of this subset of N95 respirators.

For additional differences between surgical masks and N95 respirators, please see CDC's infographic (https://www.cdc.gov/niosh/npptl/pdfs/UnderstandDifferenceInfographic-508.pdf).

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Experimental investigation of indoor aerosol dispersion and accumulation in the context of COVID-19: Effects of masks and ventilation

Physics of Fluids **33**, 073315 (2021); https://doi.org/10.1063/5.0057100

Yash Shah, John W. Kurelek, Sean D. Peterson, *and* Serhiy Yarusevych[a)]

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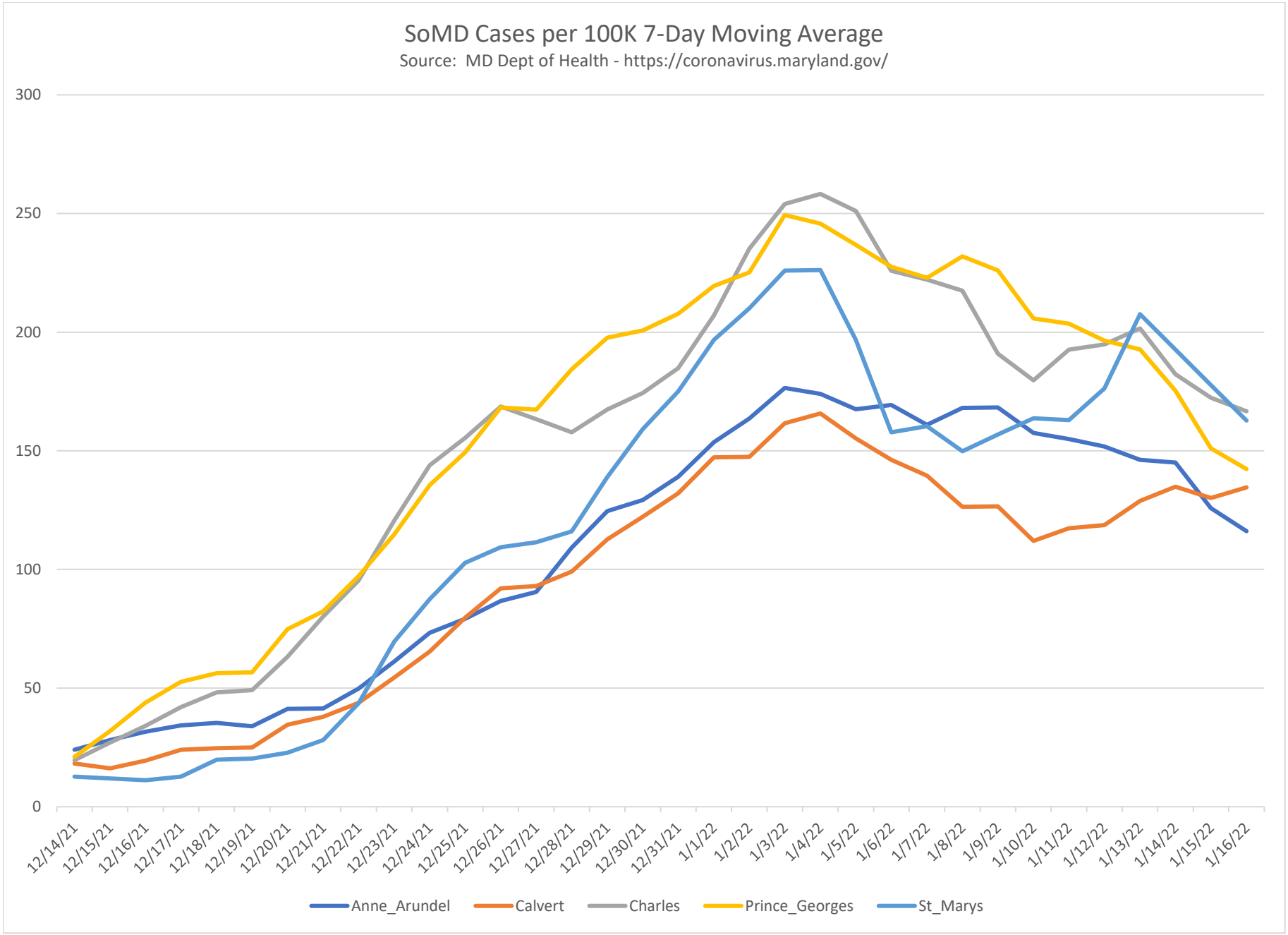
concentrations saturate at elevated levels, indicating accumulation of aerosol particles within the room. When the subject is not fitted with a mask, the saturation concentration is the highest among all the cases tested. A decrease in saturation concentration is seen for all mask types; however, the effective filtration is notably lower than the ideal filtration efficiency of the material due to leakages in accordance with a mask's ability to decrease the number of particles released into the room per breath. Thus, the apparent filtration efficiency of a mask (η_{AFE}) is estimated based on the relative difference in saturation concentration at the measurement location between cases with and without a mask. This metric provides a more representative measure of mask efficiency and is of particular interest for future modeling studies and continuous occupancy risk assessment.

The results show that a standard surgical and three-ply cloth masks, which see current widespread use, filter at apparent efficiencies of only 12.4% and 9.8%, respectively. Apparent efficiencies of 46.3% and 60.2% are found for KN95 and R95 masks, respectively, which are still notably lower than the verified 95% rated ideal efficiencies. Furthermore, the efficiencies of a loose-fitting KN95 and a KN95 mask equipped with a one-way valve were evaluated, showing that a one-way valve

than half (down to 20.3%), while a loose-fitting KN95 provides a negligible apparent filtration efficiency (3.4%). The present results provide an important practical contrast to many other previous experimental and numerical investigations, which do not consider the effect of mask fit when locally evaluating mask efficiency or incorporating mask usage in a numerical model. Nevertheless, if worn correctly, high-efficiency masks still offer significantly improved filtration efficiencies (apparent and ideal) over the more commonly used surgical and cloth masks, and hence are the recommended choice in mitigating the transmission risks of COVID-19.

The directivity of aerosol dispersion was assessed through concentration measurements at a 2 m distance and at locations in front of (0°), to the side of (90°), and behind (180°) the subject with a surgical and KN95 masks. For all the cases, the effect of orientation was less than about 10% of the local particle concentration and indicated a relatively minor directivity effect at a distance of 2 m. It is conjectured based on the flow measurements in the vicinity of the manikin face that significant directivity effects are confined to the relatively close proximity of the host.

The effect of ventilation/air-cleaning was consider


SoMD Cases per 100K 7-Day Moving Average
Source: MD Dept of Health - https://coronavirus.maryland.gov/
300
250
200
150
100
50
0
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